

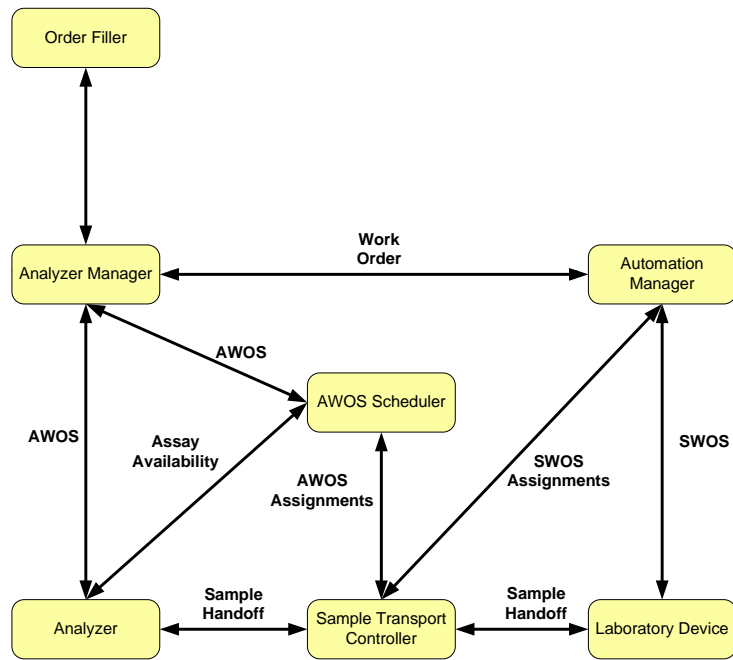
IHE Laboratory Scope of LDA Re-engineering

F2F Meeting
November 10, 2014

Objective

- Propose refined scope for LDA re-engineering
- Gain alignment on scope
- Obtain commitment for participation
 - Automation vendors
 - Analyzer vendors

Total Lab Automation Actors



Proposed Scope

- Query, Download, and Status Update for Peri-analytical work
 - Revise post-LAW LDA and revisit messages
 - e.g. Centrifugation, de-capping, aliquoting, storage
- Automated transport of samples to and from Analytical and Peri-analytical Devices
 - Containers and carriers
 - Point-in-Space versus Pick-and-Place

Constraints

- Automated sample transport has evolved to use multiple mechanisms with significant variations
 - e.g. point-in-space versus pick-and-place
- Identify specific “common” industry scenarios to reduce scope
 - Point-in-space for one sample container
 - Evaluate messaging for most common scenarios

Activities

- SWOS Evaluation (LDA refinement)
 - LAB-22 WOS Query
 - Similar to LAW
 - Two-part query (Asynchronous Query)
 - LAB-21 for response
 - LAB-21 Work Order Step Download to LD
 - Pre-analytical devices are not performing “observations”
 - Review structure and content for Automation
 - e.g. How to order three aliquots
 - LAB-26 SWOS Status Change

Activities

- Sample Handoff
 - Refinement of scope
 - Analysis to define Sample Handoff use cases, transactions, and messages

Backup Slides

Automation Actor Descriptions

- Order Filler – receives the laboratory work for each patient
 - Work Order
- Analyzer – instrument that automates IVD testing
- Analyzer Manager – manages analytical work for the instrument based on the Work Order
 - Analytical Work Order Step (AWOS)
- Laboratory Device – device that automates specimen (sample) preparation
- Automation Manager – manages specimen (automation) work for the laboratory devices based on the Work Order
 - Specimen Work Order Step (SWOS)

Automation Actor Descriptions

- Assay (AWOS) Scheduler* – schedules analytical work based on orders, instrument status, instrument capabilities, laboratory workflow, result status, etc (Assay Availability). Typically used with automation but could be used with stand-alone deployments.
- Sample Transport Controller* – manages sample (specimen) container transport and handoff

* Potential actors for new version of LDA

Automation Data Flow Descriptions

- Work Order (LTW)
 - LAB-4 Work Order Management
 - LAB-5 Test Results Management
- AWOS (LAW)
 - LAB-27 Query for AWOS
 - LAB-28 Analytical Work Order Step Broadcast
 - LAB-29 AWOS Status Change
- SWOS (LDA)
 - LAB-21 Work Order Step Download to LD
 - LAB-22 WOS Query
 - LAB-26 SWOS Status Change
 - Review use of LAB-21 and LAB-22 for SWOS

Automation Data Flow Descriptions

- Assay Availability
 - Ability to run an Assay
 - Tests available
 - Calibration Status
- AWOS Assignments
 - The Analyzers that need a Sample Container
- SWOS Assignments
 - The Laboratory Devices that need a Sample Container
- Sample Handoff
 - Coordination over the custody of the Sample Container